

MUNICIPALITY OF ANCHORAGE
ASSEMBLY INFORMATION MEMORANDUM

No. AIM 48-2018

Meeting Date: May 22, 2018

1 **From: Mayor**

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3 **Subject: AMC 3.102.010B. Annual UAS report**

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6 The Administration submits this report pursuant to Anchorage Municipal
7 Code 3.102.010B.

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9 Among other things, AMC 3.102.010B. requires the mayor or a designee to annually
10 report by June 1, for each municipal department and agency that used an
11 Unmanned Aircraft System (UAS) in the preceding calendar year: (a) the number of
12 instances in which a UAS was used; (b) a general description of the type and
13 purpose of each use that sufficiently explains how the use was not prohibited, and
14 (c) any new policy, or change in department or agency policy, related to the use of
15 UAS.

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17 The Administration reports as follows:

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19 **The Port of Alaska**

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21 The Port of Alaska had two occasions in 2017 where they contracted for a drone
22 operator to film port facilities:

- 23
24 1. Winter 2016 – 2017: Upper One Studios (Rick Mallars) shot some
25 action on or around the dock of winter container ship operations and
26 ice buildup/formations on the fenders. The footage was turned it into
27 a couple of video shorts.
28 2. Fall 2017: Upper One Studios shot drone video of the completed
29 work at the small boat launch. The Port wanted footage of the work at
30 the end of the construction to compare to what it looks like this year,
31 after break-up.

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33 The Port has not adopted a UAS policy, but is aware that UASs must stay below the
34 height of the bluff leading up to JBER (160'), and out of the approach lanes to
35 JBER's east-west runway.

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37 **Solid Waste Services**

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39 Solid Waste Services utilized a drone for a pilot project with the University of
40 Anchorage Alaska in August and September 2017, to measure in-place waste
41 density and cover material usage at the Anchorage Regional Landfill (ARL). There
42 were a total of three (3) flights at ARL and the drone was flown only within the

boundaries of the facility. SWS plans to purchase a UAS by the end of 2018 and use it for real time monitoring of in-place waste density and cover material usage.

Anchorage Police Department (APD)

APD acquired its first drone at the end of March, 2017 when APD’s program coordinator attended the NATIA UAS class. The drone was provided by the course as part of the tuition. In the months following the school, APD’s policies were being drafted and under review. While the drone had a small amount of flight time, none of it was in the course of APD business. The times the drone was in the air were after firmware updates for testing purposes, one flight for the Alaska State Troopers as a demonstration and a few indoor flights inside our vehicle storage facility.

The UAS “Certificate of Authorization” which APD operates under was not approved by the federal government until February 1, 2018. As a result, APD’s drone use in 2017 is very limited; APD did not have any official Police Department use as it simply did not have a program in place. Below is a list of 2017 flights that were for demonstration, maintenance, or training only.

APD adopted its initial UAS Policy in 2018, *Use and Management of Small Unmanned Aircraft Systems - 3.11.010*, which was virtually the same policy that was given to the Assembly and the public as a draft. The policy is online on the APD Internet page.

Since APD did not have any operational deployments in 2017, there were no arrests made in conjunction with drone use, and no search warrants obtained that were executed with the assistance of drones.

Date	Duration (MM:SS)	Purpose	Location	Comments
3/31/2017	8:37	First flight, training	Kansas City, KS	
4/5/2017	3:50	Demonstration	APD Burlwood	Demo to Tactical Support Unit [TSU]
4/5/2017	1:18	Demonstration	APD Burlwood	Demo to TSU
4/5/2017	9:39	Demonstration	APD Burlwood	Demo to TSU
4/5/2017	2:26	Demonstration	APD Burlwood	Demo to TSU
4/7/2017	4:33	Demonstration	APD Burlwood	Demo to TSU
4/7/2017	5:43	Demonstration	APD Burlwood	Demo to TSU
4/7/2017	4:32	Demonstration	APD Burlwood	Demo to TSU
4/14/2017	16:36	Demonstration	Anchorage, AK Troopers	Demo to AST
4/17/2017	5:12	Software update	APD Burlwood	Software update
4/19/2017	3:37	Demonstration	APD Burlwood	Demo
4/19/2017	9:13	Demonstration	APD Burlwood	Demo
4/19/2017	2:21	Demonstration	APD Burlwood	Demo
5/23/2017	0:53	Demonstration	APD Burlwood	Demo
8/31/2017	5:06	Maintenance	Anchorage, AK	Software update
8/31/2017	1:29	Maintenance	Anchorage, AK	Software update
8/31/2017	0:14	Maintenance	Anchorage, AK	Software update
8/31/2017	0:59	Maintenance	Anchorage, AK	Software update
8/31/2017	0:32	Maintenance	Anchorage, AK	Software update
8/31/2017	0:45	Maintenance	Anchorage, AK	Software update
9/7/2017	0:29	Demonstration	Hiland Dump	Demo
9/11/2017	0:52	Testing	APD Burlwood	Indoor flying

NO COA REQUIRED

Project Management & Engineering (PM&E)

PM&E has a term contract with CRW Engineering Group LLC to provide Professional Land Surveying Services. CRW owns an UAS (drone) which has been used on PM&E projects to provide topographic surveying and mapping as well as aerial photography. The crew from CRW which operates this drone system is comprised of Professional Land Surveyors who are FAA certified operators.

When CRW first acquired their drone system they ran a test on the Duben West project; this project was initially surveyed and designed using traditional methods and GPS control. In 2017, CRW ‘re-surveyed’ the entire project using their drone and compared the data points between the traditional & drone surveys. The differentials between points was minimal – less than a few hundredths of a foot at the greatest.

In 2017, PM&E used this drone system on the Tudor Center Project (17-29). On this project, PM&E had two estimates: \$32,730 for a traditional survey and \$25,390 for the drone survey. PM&E estimates that the cost of field work is decreased by about 30% using the drone.

Municipal Light & Power (ML&P)

ML&P used a contractor, Alaska Aerial Media, in 2017 for Ortho-rectified Imagery Acquisitions for use of topographic survey, and engineering design purposes:

- Bootleggers Cove – Title 21 Project
- Plant 2A – Post-Construction As-Built
- Third Avenue – Title 21 Project
- 27th Avenue – Title21 Project

ML&P follows FAA guidelines and regulations, but does not currently have a UAS policy. ML&P’s contractor Alaska Aerial Media, complies with FAA Part 107.

Prepared by: Office of the Municipal Manager
Approved by: William D. Falsey, Municipal Manager
Respectfully submitted: Ethan A. Berkowitz, Mayor